Paper reference 31761H
Pearson BTEC Level 3
Nationals Certificate, Extended Certificate, Foundation Diploma, Diploma, Extended Diploma

Information Technology
UNIT 2: Creating Systems to Manage Information
(Part B)

Time: 2 hours

V67968RA

Pearson

YOU MUST HAVE
activity6.rtf,
activity7.rtf,
partB_database.accdb or
partB_database.mdb

YOU WILL BE GIVEN
Nil

INSTRUCTIONS

- **Part A** and **Part B** contain the material for the completion of the assessment under supervised conditions.

- There are 40 marks for **Part A** and 26 marks for **Part B**, giving a total mark for the assessment of 66.

- **Part A** and **Part B** are specific to each series and this material must be issued only to learners who have been entered to take the assessment in the specified series.

(continued on the next page)

INSTRUCTIONS continued

- **Learners MUST ONLY have access to Part B during this examination session.**

- **This booklet should be kept securely until the start of the 2 − hour supervised assessment period.**

- **Part A materials MUST NOT be accessed during the completion of Part B.**

- **Part A and Part B should be submitted together for each learner.**

- **This booklet should not be returned to Pearson.**

- **Answer ALL activities.**

INFORMATION

- **The total mark for this paper is 26.**

INSTRUCTIONS TO INVIGILATORS

This paper must be read in conjunction with the unit information in the specification and the **BTEC Nationals Instructions for Conducting External Assessments (ICEA)** document.
See the Pearson website for details.

Refer carefully to the instructions in this task booklet and the **BTEC Nationals Instructions for Conducting External Assessments (ICEA)** document to ensure that the assessment is supervised correctly.

The 2 − hour **Part B** activities must be carried out under examination conditions.

The database and electronic templates for Activities 6 and 7 are available on the website for centres to download for candidate use.

(continued on the next page)

INSTRUCTIONS TO INVIGILATORS continued

Learners must complete Part B on a computer using the templates provided and appropriate software. All work must be saved as PDF documents for submission.

Invigilators may clarify the wording that appears in Part B but cannot provide any guidance in completion of the activities.

Invigilators should note that they are responsible for maintaining security and for reporting issues to Pearson.

(continued on the next page)

INSTRUCTIONS TO INVIGILATORS continued

MAINTAINING SECURITY

- Learners must not bring anything into the examination environment or take anything out.
- Centres are responsible for putting in place appropriate checks to ensure that only permitted material is introduced into the examination environment.
- Internet access is NOT permitted.
- Learners' work must be regularly backed up. Learners should save their work to their folder using the naming instructions indicated in each activity.
- During any permitted break, and at the end of the examination, materials must be kept securely, and no items removed from the supervised environment.

INSTRUCTIONS TO INVIGILATORS continued

- **Learners can only access their work under supervision.**

- **User areas must only be accessible during the examination session and only by the individual learners.**

- **Any materials being used by learners must be collected in at the end of the examination.**

- **Following completion of Part B, all materials must be retained securely for submission to Pearson.**

- **Part A materials must not be accessed during the completion of Part B.**

(continued on the next page)

INSTRUCTIONS TO INVIGILATORS continued

OUTCOMES FOR SUBMISSION

Each learner must create a folder to submit their work.

The folder should be named according to this naming convention:

[Centre #]_[Registration number #]_ [surname]_[first letter of first name]_ PartB

Example: **Joshua Smith** with registration number **F180542** at centre **12345** would have a folder titled

12345_F180542_Smith_J_PartB

Each learner will need to submit 3 PDF documents AND their final database within their folder.

(continued on the next page)

INSTRUCTIONS TO INVIGILATORS continued

The 3 PDF documents should use these file names:

ACTIVITY 6:
activity6_[Registration number #]_[surname]_[first letter of first name]

ACTIVITY 7:
activity7_[Registration number #]_[surname]_[first letter of first name]

ACTIVITY 8:
activity8_[Registration number #]_[surname]_[first letter of first name]

INSTRUCTIONS FOR LEARNERS

Read the scenario, brief, and activities information carefully.

Plan your time carefully to allow for the preparation and completion of all the activities.

Internet access is NOT allowed.

You will complete this activities under supervision and your work will be kept securely at all times.

You must work independently throughout the examination and must not share your work with other learners.

(continued on the next page)

INSTRUCTIONS FOR LEARNERS continued

Your invigilator may clarify the wording that appears in **Part B** but cannot provide any guidance in completion of the activities.

Part A materials **MUST NOT** be accessed during the completion of **Part B**.

(continued on the next page)

INSTRUCTIONS FOR LEARNERS continued

OUTCOMES FOR SUBMISSION

You must create a folder to submit your work.

The folder should be named according to this naming convention:

[Centre #]_[Registration number #]_ [surname]_[first letter of first name]_ PartB

Example: **Joshua Smith** with registration number **F180542** at centre **12345** would have a folder titled

12345_F180542_Smith_J_PartB

You will need to submit 3 PDF documents AND your final database within this folder.

(continued on the next page)

INSTRUCTIONS FOR LEARNERS continued

The 3 PDF documents should use these file names:

ACTIVITY 6:
activity6_[Registration number #]_ [surname]_[first letter of first name]

ACTIVITY 7:
activity7_[Registration number #]_ [surname]_[first letter of first name]

ACTIVITY 8:
activity8_[Registration number #]_ [surname]_[first letter of first name]

Part B Brief

You are advised to spend 10 minutes reading the Scenario and the activities you are to complete.

You may make notes and / or highlight information to use in the completion of the documents you need to produce for your activities.

(continued on the next page)

Part B Brief continued

SCENARIO

'Martlepool College Ladies Football Club' has partially developed a database that will eventually merge with the database you created in Part A.

They play as part of a league.

There are 12 clubs in the league, including Martlepool College.

There are 22 fixtures.

Martlepool plays against each of the clubs twice; home and away.

Each fixture is assigned a referee.

Referees must have a Level 5, 6 or 7 qualification.

(continued on the next page)

Part B Brief continued

The number of goals scored in each fixture needs to be recorded:

- goals scored by Martlepool College are 'goals for'
- goals scored by their opponents are 'goals against'.

The result of a fixture needs to be generated:

- a 'win' is where Martlepool College have scored more goals than their opponent
- a 'loss' is where their opponent scores more goals
- a 'draw' is where the number of goals is equal.

(continued on the next page)

Part B Brief continued

Statistics also need to be generated including:

- **the overall number of goals scored by Martlepool College**
- **the overall number of goals scored by their opponents.**

Part B Set Task

You must complete ALL activities within Part B.

Produce your documents using a computer.

Save your documents in your folder ready for submission using the formats and naming conventions indicated.

ACTIVITY 6: FORMS − You are advised to spend 1 hour and 10 minutes on this activity.

NOTE

- The structure of the tables provided should not be changed in any way, e.g. do not add validation, do not change data types.
- You will only be required to use tblReferee, tblTeam and tblFixture.

Create an efficient interface that will facilitate database input by producing:

(a) an input form to add a referee.

- The form should be ready for data entry.
- The referee's surname must be present.

(continued on the next page)

ACTIVITY 6 (a) continued

- The referee's email address must use a valid format.
- The user should be able to select the referee's level.
- The level selected must be within the valid range.
- Valid data should be appended to the referee table, a save message should display and the form should be cleared ready for the next data entry.
- A suitable error message should appear where invalid data has been used.

(continued on the next page)

ACTIVITY 6 continued

(b) an input form to add the results of a fixture and view statistics.

- The form should NOT include validation for any fields.
- The form should NOT include an automated routine to save the data.
- The user should be able to select the team name from a drop down box that displays only the fixtures that do not yet have any results.
- The user should be able to enter the goals scored by Martlepool College, 'goals for'.
- The user should be able to enter the goals scored by the opposition, 'goals against'.

(continued on the next page)

Turn over

ACTIVITY 6 (b) continued

- **The result of the fixture should be generated and displayed as win, loss or draw for Martlepool College.**
- **The overall number of goals for Martlepool College should be displayed including the results of the current fixture.**
- **The overall number of goals against Martlepool College should be displayed including the results of the current fixture.**

(continued on the next page)

ACTIVITY 6 continued

Evidence your interface as screenprints using the given **activity6.rtf** template.

Your screenprints must show:

- the **DESIGN** view and **FORM** view of all the forms you have created
- the **DESIGN** view of any queries you have created and used with the forms including fields and criteria
- the **DATASHEET** view of any queries you have created and used with the forms
- details of any calculations, validation and macros / code you have created and used with the forms.

(continued on the next page)

ACTIVITY 6 continued

Ensure sufficient information is provided to allow a competent third party to maintain the database.

Save the evidence of your interface as a PDF in your folder for submission as

activity6_[Registration number #]_ [surname]_[first letter of first name]

(Total for Activity 6 = 14 marks)

ACTIVITY 7: INTERFACE TESTING − You are advised to spend 20 minutes on this activity.

Evaluate your interface.

Test the interface of your relational database using suitable test data (normal, erroneous and extreme as appropriate).

You must not add validation to any of the tables.

You must provide evidence of FORM LEVEL testing that proves:

1. **the referee's name must be present**
2. **the referee's email must use a valid format**
3. **the level of the referee cannot be below the valid range**

(continued on the next page)

Turn over

ACTIVITY 7 continued

4. a record will save in the referee table if the referee's details are present and valid

5. the result of the fixture will be generated correctly as win, loss or draw

6. the overall number of goals for Martlepool College should be displayed including the current fixture

7. the overall number of goals against Martlepool College should be displayed including the current fixture.

Complete the test log to show how you have tested your input forms using the given **activity7.rtf** template.

(continued on the next page)

ACTIVITY 7 continued

Save your test log as a PDF in your folder for submission as

activity7_[Registration number #]_ [surname]_[first letter of first name]

(Total for Activity 7 = 6 marks)

ACTIVITY 8: INTERFACE EVALUATION

– You are advised to spend 20 minutes on this activity.

You should consider the quality, performance and usability of the interface you have created in terms of how well it ensures:

Referee form

- the referee's name must be present
- the referee's email address must use a valid format
- the level of the referee cannot be below the valid range
- the level of the referee cannot be above the valid range
- a record will save in the referee table if the referee's details are present and valid

ACTIVITY 8 continued

Add the results of a fixture and view statistics form

- the user should be able to select the team name from a drop down box that displays only the fixtures that do not yet have any results
- the result of the fixture will be generated correctly as win, loss or draw
- the overall number of goals for Martlepool College should be displayed including the current fixture
- the overall number of goals against Martlepool College should be displayed including the current fixture.

(continued on the next page)

ACTIVITY 8 continued

Save your evaluation as a PDF in your folder for submission as

activity8_[Registration number #] _ [surname]_[first letter of first name]

(Total for Activity 8 = 6 marks)

TOTAL FOR PART B = 26 MARKS

END OF PAPER